

June 1, 2016

Christa Luarin  
**Gesu Catholic School**  
17139 Oak Drive  
Detroit, Michigan 48221

Subject: Summary of Water Sampling Activities  
Gesu Catholic School  
Detroit, Michigan  
AKT Peerless Project No. Project No. 11510f-1-20

Mrs. Luarin:

AKT Peerless was retained to provide environmental consulting services at Gesu Catholic School located at 17139 Oak Drive, Detroit, Wayne County, Michigan (subject property). AKT Peerless conducted sampling of the municipally-provided drinking water at the subject property. AKT Peerless' scope of services is based on its proposal, PF-19174, dated April 27, 2016, and the existing master services agreement between AKT Peerless and the Archdiocese of Detroit (the Client).

## Introduction

AKT Peerless was provided a letter from the City of Detroit Health Department to Holy Redeemer Grade School, dated April 14, 2016, regarding the protection of children from lead exposure at all early childhood education centers (ECECs). According to the letter, all ECECs are required to provide the Detroit Health Department testing of the drinking water for lead within the past 12 months by June 15, 2016. Laboratory results are required from sampling of three high-flow sources of drinking water in the building, including at least one common-use drinking fountain and the main kitchen tap, if applicable.

Refer to Attachment 1 for a copy of the letter from the Detroit Health Department.

## Scope of Assessment

AKT Peerless' scope of work included (1) conducting a pre-sampling inspection of the fixture(s), (2) identifying three high priority sample locations with the assistance of facility maintenance personnel, (3) checking and cleaning aerators, (4) recording water coolers and associated model numbers, (5) noting electric wires grounded to pipes, to the extent readily observable, (6) identifying the locations of recalled water coolers to the extent readily observable, and (7) conducting first draw and 30 second flush samples.

Samples were collected in general accordance with Michigan Department of Environmental Quality (MDEQ) sampling protocol for *Drinking Water Sampling for Lead and Copper at Schools and Daycares on Community Water Supplies*, dated April 20, 2016. The drinking water samples were transported under chain-of-custody documentation in an ice-cooled container to Brighton Analytical Laboratory L.L.C. (BAL), a National Environmental Laboratory Accreditation Conference (NELAC)/MDEQ certified drinking water laboratory. Refer to Attachment 2 for a site map with sample locations. Refer to Attachment 3 for a photographic log.

## Water Cooler Survey

AKT Peerless identified the following water coolers at the subject property:

Manufacturer	Model Number	Quantity	Grounded Piping (Yes/No/Not Accessible)
Halsey Taylor	HTV8Q_1E	2	No
Elkay	EZFS8_1C	2	Not accessible
Halsey Taylor	HTV8O_1A	1	No
Elkay	EWCA-8-3	1	Not accessible
<b>Halsey Taylor</b>	<b>WM-8-A</b>	<b>1</b>	<b>Not accessible</b>
Not identified	WM-1-4A-3-Q	1	Not accessible

**BOLD** – indicates recalled water cooler

A survey of water coolers at the subject property did not identify water coolers that were recalled due to potential lead exposure hazards, except for WC-07, which is located on the ground level, near Classroom 109. AKT Peerless recommends recalled water coolers are taken out of service immediately and replacement should be considered.

## Laboratory Analysis and Methods

AKT Peerless submitted six drinking water samples collected from the subject property to BAL for the analysis of lead. Samples were analyzed using United States Environmental Protection Agency (USEPA) Method 200.8 rev 5.4. If present, aerators were removed and cleaned at each sample location. The results of the laboratory analyses of the samples are summarized in the table below:

### Summary of Analytical Results

Sample Identification*	Analytical Result (parts per billion, ppb)
GESU-KC-P-01	6
GESU-KC-F-01	Not detected
GESU-WC-P-01	Not detected
GESU-WC-F-01	Not detected
GESU-WC-P-02	Not detected
GESU-WC-F-01	Not detected

### **Analytical Results**

AKT Peerless compared the laboratory analytical results to the National Primary Drinking Water Standards (adopted by the MDEQ). The laboratory analytical results did not indicate the presence of lead above applicable primary drinking water standards.

Refer to Attachment 4 for a complete laboratory analytical report and chain of custody documentation.

### **Conclusions**

Based on laboratory analytical results, target parameters were not detected in the samples above the United States Environmental Protection Agency (USEPA) action level of 15 ppb.

### **Limitations**

AKT Peerless was not provided access to the girl's locker room (room 125) because the door was locked.

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Subject to the above and the terms and conditions, AKT Peerless accepts responsibility for the competent performance of its duties in executing the assignment and preparing reports in accordance with the normal standards of the profession, but disclaims any responsibility for consequential damages. Although AKT Peerless believes that results contained herein are reliable, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive or that the information provided by Gesu Catholic School and the Archdiocese of Detroit or third parties is complete or accurate.

**Signatures of Environmental Professionals**



Deanna Hutsell, P.E.

Project Manager

**AKT Peerless**

Farmington, Michigan Office

Phone: 248.615.1333

Fax: 248.615.1334

The following individual contributed to the completion of this report.



Julie Barton

Project Manager

**AKT Peerless**

Detroit, Michigan Office

Attachment 1 Detroit Health Department Letter

Attachment 2 Site Plan with Sampling Locations

Attachment 3 Photographic Log

Attachment 4 Laboratory Analytical Report and Chain of Custody Documentation

**Attachment 1**  
**Detroit Health Department Letter**



**Detroit Health Department**

April 14, 2016

Holy Redeemer Grade School  
1711 Junction St  
Detroit, MI 48209-2190  
(313) 841-5230

**Protecting Detroit children from lead**

Dear Head Administrator:

We are contacting you regarding our shared efforts to maintain a safe and healthy learning environment for Detroit children. Given the recent news about potential lead contamination of school drinking water in Michigan schools, including Howell and Westland, the Detroit Health Department is being proactive to assure that the water in schools, preschools, daycares, and childcare centers is clean and free of lead.

Therefore, we are asking that your school either:

- 1) Furnish evidence of water testing your campus meeting EPA criteria (<https://www.epa.gov/dwreginfo/lead-drinking-water-schools-and-child-care-facilities>) conducted after 4/15/2015; or
- 2) Conduct water testing for lead contamination. Water testing should be conducted according to EPA criteria by a 3<sup>rd</sup> party (more on specific criteria and 3<sup>rd</sup> party vendors in the accompanying sheet).

**These are required by June 15<sup>th</sup>, 2016:**

- To offset the costs of testing, the Detroit Health Department will reimburse your school for up to \$225, with funding made possible by a generous grant from the Children's Hospital Foundation of Michigan. Reimbursement will be provided after the Detroit Health Department has received your completed lab results.
- If there is evidence of lead contamination above the actionable level of 15 parts per billion, we will require a full assessment and mitigation plan.
- Further, the Detroit Health Department recommends that all children under the age of 6 be tested annually for elevated blood lead.

Please send your completed lab results to the Detroit Health Department:

ATTN: Matt Vallevand  
Detroit Health Department  
3245 E. Jefferson Ave, Ste 100  
Detroit, MI 48207

If you have any questions, please contact Matt Vallevand:

Email: [vallevandm@detroitmi.gov](mailto:vallevandm@detroitmi.gov)  
Or by phone: (313) 876-4550



**Detroit Health Department**

Additional resources about Lead can be found at the following websites or by calling the telephone numbers provided:

1. Detroit Health Department Lead Program: 313-876-0133
2. Centers for Disease Control & Prevention (CDC) [www.cdc.gov/ncel/lead](http://www.cdc.gov/ncel/lead); 800-232-4636
3. US Environmental Protection Agency (EPA): [www.epa.gov/nlic.htm](http://www.epa.gov/nlic.htm). 800-424-LEAD
4. US Department of Housing and Urban Development: [www.hud.gov/lead](http://www.hud.gov/lead)
5. US Consumer Product Safety Commission Hotline: [www.cpsc.gov](http://www.cpsc.gov) 800-638-2772

Sincerely,

Abdul M. El-Sayed, MD, DPhil  
Executive Director & Health Officer



## ***Detroit Health Department***

### **PURPOSE:**

To ensure that all Licensed daycares, preschools, head starts, and elementary schools (early childhood education centers; ECECs) in the City of Detroit have completed a Lead Hazard Risk including screening drinking water for lead contamination.

### **POLICY:**

All ECECs licensed for children in the in the City of Detroit shall complete a Lead Hazard Risk Assessment of the facilities that includes testing the drinking water for Lead in accordance with EPA standards (<https://www.epa.gov/dwreginfo/lead-drinking-water-schools-and-child-care-facilities>) and guidance from the WK Kellogg Foundation (<https://www.wkcf.org/~media/pdfs/healthy%20kids/2016/managing%20lead%20in%20drinking%20water.pdf>).

### **PROCEDURE:**

1. As part of the mandated inspection of all ECECs by the Detroit Health Department (DHealth), all ECECs shall be notified about this new policy in writing.
2. All Lead testing must adhere to the guidelines and protocols set forth by the U.S. Environmental Protection Agency (EPA) (<https://www.epa.gov/dwreginfo/lead-drinking-water-schools-and-child-care-facilities>).
3. Lead testing and assessment must be completed by a 3<sup>rd</sup> party State or EPA certified vendor (vendor list attached).
4. During DHealth's inspection, or by June 15<sup>th</sup>, the ECEC is required to provide DHealth with a copy of Lead testing of the drinking water within the last 12 months.
5. If no lead screening test has been done, the ECEC has until June 15<sup>th</sup>, 2016 to provide DHealth with the Lab results resulting from sampling at three high-flow sources of drinking water in the building (including at least one common-use drinking fountain, if applicable; and the main kitchen tap, if applicable). Failure to provide the test results may result in DHealth's recommendation to the State to suspend or terminate the license or a cease and desist order by the Health Officer.
6. Lead in drinking water must be less than 15 parts per billion (ppb). If the results of Lead in drinking water is greater than 15ppb, the ECEC in conjunction with DHealth shall notify parents/guardians of all children in the ECEC in writing within seven (7) days of the receipt of the Lab results.
  - a. The Health Department shall coordinate services for all children with elevated Lead levels greater than 5µg/dl per usual protocols.
7. If levels are found to be higher than the actionable limit of 15 ppb, the ECEC shall:
  - a. Immediately shut down the flows from which the samples were collected.
  - b. Immediately provide students and staff bottled drinking water in classrooms and main areas.
  - c. Immediately retest all usable water flows in the building per EPA protocol.
  - d. Provide DHealth a written plan within 15 days of the receipt of lab results greater than 15ppb with a plan to mitigate the source of the lead. The ECEC shall ensure that all mitigation work is completed within 90 days with the drinking water tested below 15 ppb during which bottled drinking water will be provided.
8. This policy shall take effect on April 15<sup>th</sup>, 2016. By this date, each ECEC will be notified of the requirement to have conducted testing by May 15<sup>th</sup>, 2016.





## **Detroit Health Department**

### **ADAPTED EPA SAMPLING PROCEDURES:**

ECECs will be required to sample at least 3 high-priority sites:

- Drinking fountains, both bubbler and water cooler style
- Kitchen sinks
- Classroom combination sinks and drinking fountains
- Home economic rooms sinks
- Teacher's lounge sink, nurse's office sink
- Classroom sinks in special education classrooms
- Any sink known to be or visibly used for consumption (for example, coffee maker or cups are nearby).

#### *Before you sample*

A written sampling plan is highly recommended. It will clarify procedures for any personnel who are involved in the sampling program.

- Conduct a pre-sampling inspection.
- Identify each outlet that will be tested for lead.
- Check aerators for debris; clean if necessary.
- Make note of cooler make and model.
- Note any locations where electrical wires are grounded to water pipes.
- Identify locations of recalled water coolers.

Code each outlet using a system that will allow you to identify each unique outlet by:

- Location
- Type
- Other relevant characteristic

#### *Example of a coding system*

A drinking water bubbler (DW) on the 2nd floor (02) of the middle school (MID), the 15th outlet counted, might be coded as MID- 02- DW-015.

Coding examples can include:

- DW= drinking water bubbler
- WC = water cooler (chiller unit)
- CF = classroom faucet
- KC = kitchen faucet, cold
- KH = kitchen faucet, hot
- EC = home economics room, cold
- EH = home economics room sink, hot
- BF = bathroom faucet
- NS = nurse's office sink
- SC = service connector



## *Detroit Health Department*

In addition to the unique outlet code, a unique sample identifier is necessary if more than one sample will be taken from an outlet. A flush sample would also require a unique identifier.

The first draw (P) and flush (F) samples taken for the above outlet would be MID- 02- DW-015-P-01 and MID- 02- DW-015-F-01.

- P = primary (first draw) sample
- F = flush
- 01 = first sample
- 02 = second sample

The coding should be identified on a site map and a narrative that describes the location.

### *Communicate your plans*

Be open about goals to avoid confusion and communication breakdowns at a later stage. Communicate to maintenance staff, teachers, parents, and students about the plan and their roles.

### *How to sample?*

Basic sampling protocol: This is an overview of the sampling procedures. A more detailed protocol is contained in EPA's guidance document 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance (<https://www.epa.gov/dwreginfo/lead-drinking-water-schools-and-child-care-facilities#3Ts>). 3<sup>rd</sup> party testers should refer to this document.

- Determine which outlets will be sampled. Determine priorities and code outlets appropriately.
- Outlets must be inactive for at least 6 to 8 hours before testing. (Overnight is best.)
- Take a "first draw" 250 ml\*\* sample at each outlet. A "first draw" is the water that is the first to come out of the tap after the period of inactivity.
- If lead is suspected throughout system, take a 30 second "flush" sample from outlet(s).
- Send samples to a laboratory which is certified to test lead in drinking water.



*Detroit Health Department*

*Lead Water Sampling 3<sup>rd</sup> Party Testers*

Company	Address	City	Phone Number
ATC Associates	46555 Humboldt Dr, Suite 100	Novi	(248) 669-5140
Nova Environmental	5300 Plymouth Rd	Ann Arbor, MI	(734) 930-0995
Atwell Hicks	Two Towne Square, Suite 700	Southfield	(248) 447-2000
Green Solutions	17800 Woodward Ave	Detroit	(313) 279-0449
American Environmental Consulting	12838 Gavel	Detroit	(313) 491-2600

Please send completed lab results to the Detroit Health Department:

ATTN: Matt Vallevand  
Detroit Health Department  
3245 E. Jefferson Ave, Ste 100  
Detroit, MI 48207

If you have any questions, please contact Matt Vallevand:

Email: [vallevandm@detroitmi.gov](mailto:vallevandm@detroitmi.gov)  
Phone: (313) 876-4550

Reimbursement (\$225) can only be processed after the Detroit Health Department has received your site's lab samples. You may authorize your lab to send results directly to the Detroit Health Department, just be sure that your location's name and address are clearly labeled.



***Detroit Health Department***

**Helpful information about lead safety and testing**

To help ensure the safety of Detroiters and make sure it is following national best practices, the Detroit Health Department is seeing to it that the water in Detroit's schools, pre-schools, Head Start centers, day cares and child care centers is safe to drink.

To make sure the testing is done properly, we are requiring that this testing be done by a facility that is certified by the US Environmental Protection Agency.

The EPA limit for the presence of lead in water to be considered safe for drinking is 15 parts per billion (PPB). Most recent tests conducted of water being distributed by the City is well within EPA Guidelines, averaging 2.3 PPB. Because there are still lead service lines in the city and lead pipes in many houses and other buildings, we felt it was important to make sure that the water at our educational facilities be tested.

**If elevated levels of lead are found as a result of any of these tests**, the water outlet will immediately be shut down in the school. The Detroit Health Department will ensure that the drinking water throughout the entire school is immediately retested. Bottled water will be provided for all students and staff.

**Should your child be tested for lead poisoning?**

All children under the age of 6 in Detroit and other cities with older homes should be tested annually for lead. To have your child tested, you should make an appointment to take your child to their pediatrician or health care provider. Call the toll-free number on the back of your child's health insurance card.

You can also make an appointment at Children's Hospital Pediatrics. Call 313-745-KIDS (5437).

The Detroit Health Department also provides lead testing at its clinics at Samaritan Center (313-410-8142; at 5555 Connor, Detroit, MI 48213) or Family Place (313-410-7803; at 8726 Woodward Ave., Detroit MI, 48202).

Family Place is by-appointment only, while Samaritan Center takes walk-ins. The clinics are open 8 a.m.-5 p.m., except between noon-1 p.m. Mondays, Tuesdays, Thursdays and Fridays. It is open 9 a.m.-6 p.m. Wednesdays, except it is closed from 1 p.m.-2 p.m.

If your child does not have medical coverage, check to see if he or she is Medicaid eligible. Go to [www.mibridges.michigan.gov/access](http://www.mibridges.michigan.gov/access) for information.



***Detroit Health Department***

**Q: Who is at risk for lead poisoning?**

A: Children ages 6 and younger are at the greatest risk because they are still growing and developing. Exposure to lead can result in delays in physical and mental development for small children. Pregnant women and nursing mothers are also at risk and should avoid exposure to lead to protect their children. Adults can also suffer from lead poisoning, which usually results in aches, pains, and feeling tired all the time. However, there are few long term effects of lead poisoning in adults.

**Q: How is lead poisoning treated?**

A. It depends on how high the lead level is. At a very high level, an individual should be hospitalized so that the lead can be removed from his or her blood. At lower levels, steps should be taken to eliminate the exposure to lead while the body clears the lead itself.

## **Attachment 2**

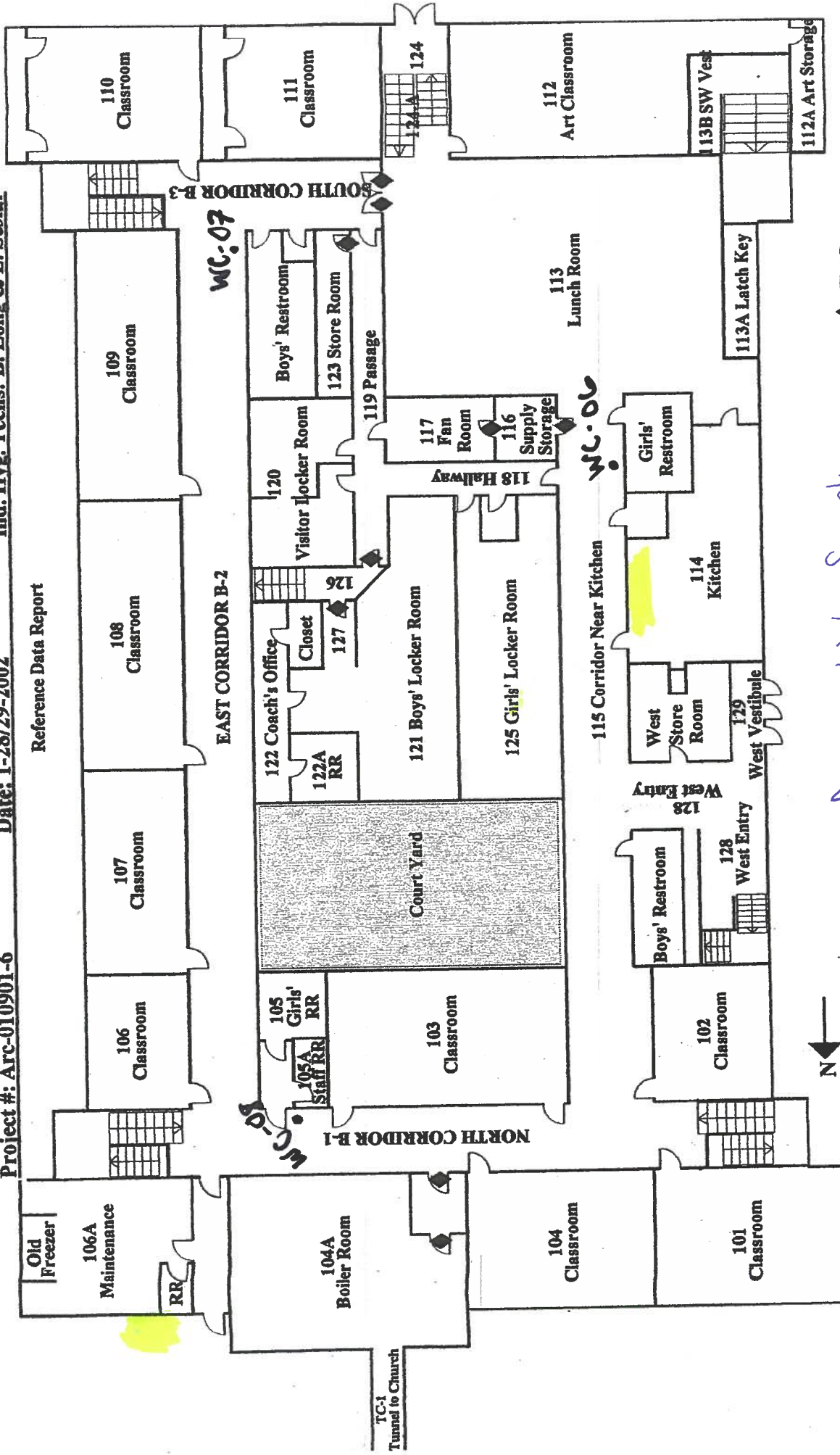
### **Site Plan and Sampling Locations**

# GESU School, Detroit, Michigan - Ground Floor Level

Asbestos 3-Year Inspection Survey, Functional Spaces

Project #: Arc-010901-6 Date: 1-28/29-2002 Ind. Hyg. Techs: B. Long & E. Seslar

Reference Data Report



Drinking Water Sampling  
GESU 5-19-16

N  
Map is not to scale

# GESU School, Detroit, Michigan - First Floor Level

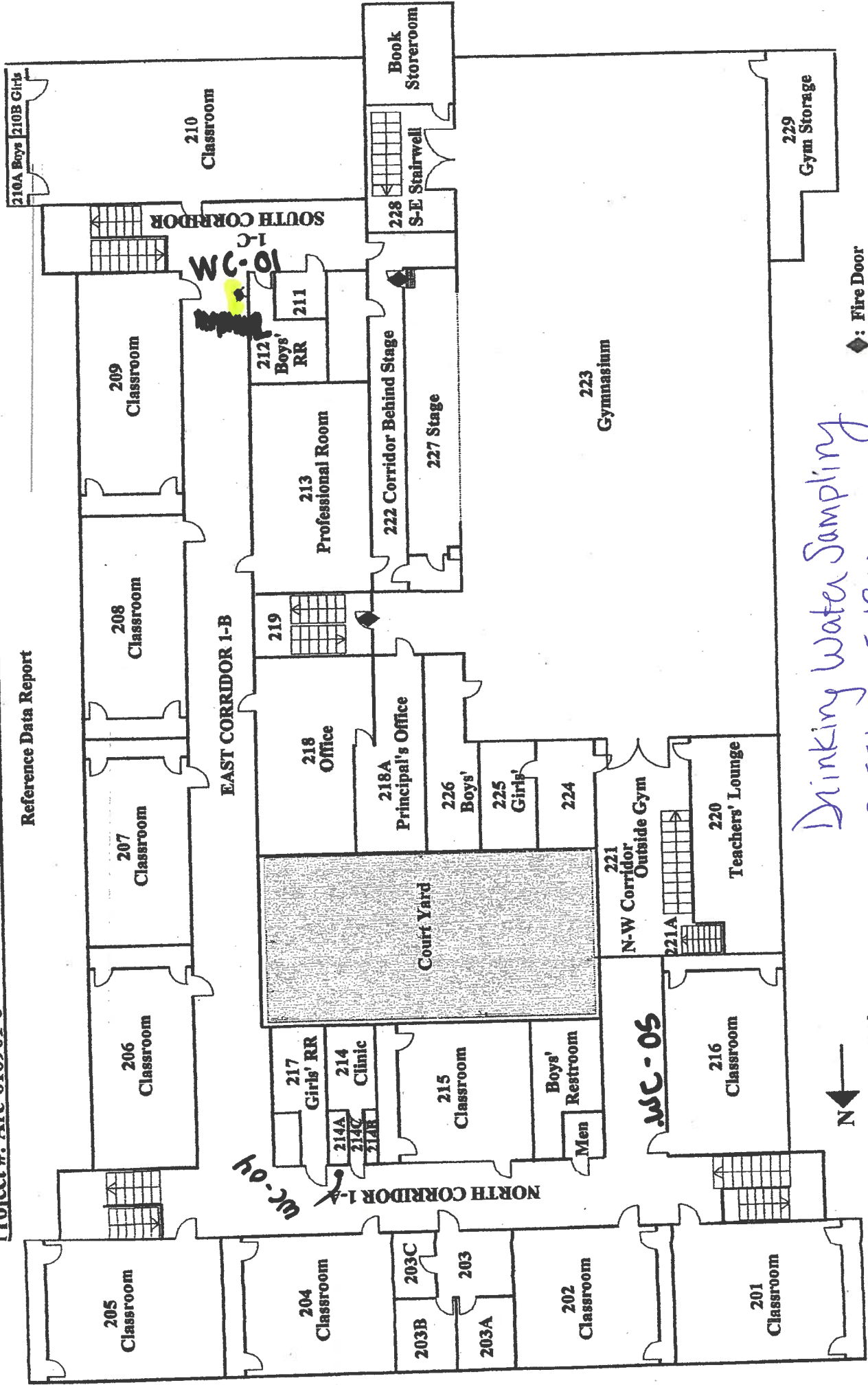
Asbestos 3-Year Inspection Survey, Functional Spaces

Ind. Hyg. Techs: B. Long & E. Seslar

Project #: Arc-010901-6

Date: 1-28/29-2002

Reference Data Report



Drinking Water Sampling  
GESU 5-19-16

HTV4Q 1A  
HAISEY TAYLOR



GESU School, Detroit, Michigan - Second Floor Level

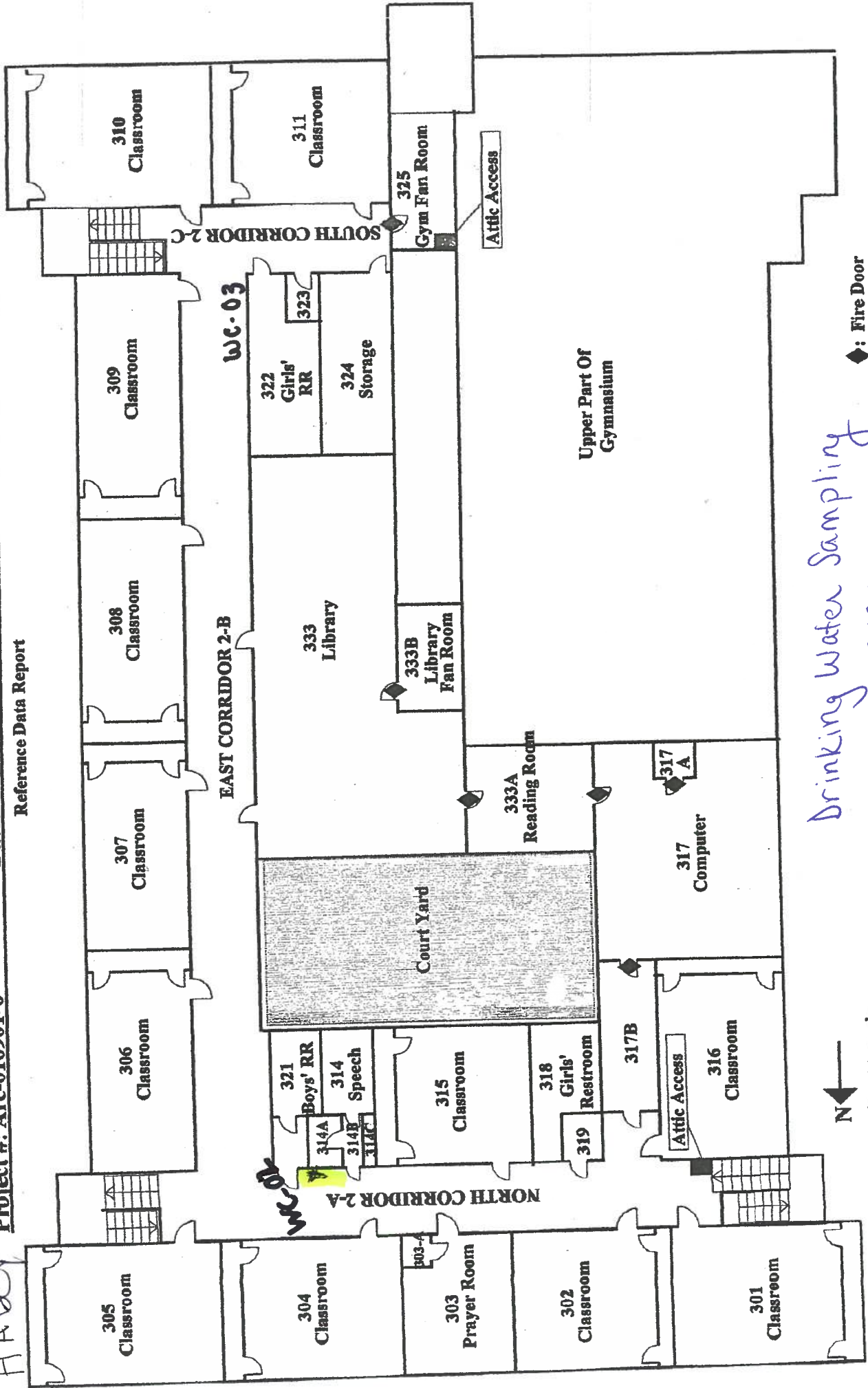
Asbestos 3-Year Inspection Survey, Functional Spaces

Ind. Hyg. Techs: B. Long & E. Seslar

Date: 1-28/29-2002

Project #: Arc-010901-6

Reference Data Report



Drinking Water Sampling  
GESU 5-19-16

## **Attachment 3**

### **Photographic Log**



WATER COOLER



WATER COOLER

**Attachment 4**  
**Laboratory Analytical Report and**  
**Chain of Custody Documentation**

May 25, 2016

AKT Peerless  
333 W. Fort  
Detroit, MI 48226

Subject: AOD Drinking Water  
GESU 1151 of 1-20

Dear Ms. Barton :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 05/20/2016 for the above mentioned project. NELAP/TNI Accredited Analysis and MDEQ Drinking Water Certified Analysis will be identified in their respective reporting formats. Hard copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be emailed separately. If you have any questions concerning the data or invoice, please don't hesitate to contact our office. We welcome your comments and suggestions to improve our quality systems. Please reference Brighton Analytical, L.L.C. Project ID 39170 when calling or emailing. We thank you for this opportunity to partner with you on this project and hope to work with you again in the future.

Sincerely,  
Brighton Analytical, L.L.C.



	<b>Brighton Analytical, L.L.C.™</b> <small>Email: bai-brighton@sbcglobal.net</small>		<b>BA PROJECT #:</b> <span style="font-size: 1.2em;">39170</span>		<b>Analysis Requested/Method</b>										PAGE <u>1</u> OF <u>1</u>	
	2105 Pless Drive      Phone: 810-229-7575 Brighton, MI 48114      Fax: 810-229-8650		<b>ABBREVIATIONS FOR MATRIX</b> S = Solid L = Liquid DW = Drinking H <sub>2</sub> O O = Oil P = Wipe A = Air (Tedlar Bag) F = Filter T = Tube M = Misc.		Sample Matrix  <span style="font-size: 2em; transform: rotate(-90deg); display: inline-block;">Lead</span>										<b>COMPANY/MAILING ADDRESS:</b>	
<b>PROJECT NAME:</b> <span style="font-size: 1.2em;">AOD Drinking Water</span>				<span style="font-size: 1.2em;">AKT PEERLESS</span>												
<b>PROJECT #:</b> <span style="font-size: 1.2em;">GESU</span> <span style="font-size: 1.2em;">11510f-1-20</span>				<span style="font-size: 1.2em;">333 W Fort 301te100</span>												
<b>PO #:</b> (PLEASE NOTE IF DIFFERENT BILLING ADDRESS)				<span style="font-size: 1.2em;">Detroit, MI 48226</span>												
<b>Sample collected by:</b> <span style="font-size: 1.2em;">Julie Barton</span>				<b>ATTN:</b> <span style="font-size: 1.2em;">Julie Barton</span>												
<b>REQUESTED TURNAROUND:</b> (circle one) Rush: 1-3 business days (verify with lab & specify date needed) 1 Day = 2.5X Cost 2 Day = 2X Cost 3 Day = 1.5X Cost <u>Standard: 5 business days</u>				<b>Container Type &amp; Quantity</b>		<b>PHONE:</b> <span style="font-size: 1.2em;">313-212-9558</span>										
						<b>FAX OR EMAIL:</b> <span style="font-size: 1.2em;">bartonj@aktpeerless.com</span>										
<b>If RUSH, approved by:</b>		<b>Sample Coll.</b>		Samples received within hold time?    yes <input checked="" type="checkbox"/> no <input type="checkbox"/>												
<b>Sample Coll.</b>		Temperature of samples °C: <span style="font-size: 1.2em;">ON ICB</span>		pHs verified in login?    yes <input checked="" type="checkbox"/> no <input type="checkbox"/>												
<b>Brighton ID #</b> <b>Sample Description</b> <b>Date</b> <b>Time</b>		Headspace/bubbles in VOA's?    yes <input type="checkbox"/> no <input type="checkbox"/> n/a <input checked="" type="checkbox"/>		Sample containers and COC match?    yes <input checked="" type="checkbox"/> no <input type="checkbox"/>												
C003460 GESU-KC-P-01      5/11/16      6:20		BILLING ADDRESS (IF REQUIRED):		Drinking H <sub>2</sub> O:												
2) 61 GESU-KC-F-01      6:20		214 Jones Ave		Fax to LCHD?    yes <input type="checkbox"/> no <input checked="" type="checkbox"/>												
3) 62 GESU-WC-P-01      6:25		Saginaw MI 48607		Chlorinated Water Supply?    yes <input checked="" type="checkbox"/> no <input type="checkbox"/>												
4) 63 GESU-WC-F-01      6:25		989-754-9896		AMT.: _____												
5) 64 GESU-WC-P-02      6:30		mikes@aktpeerless.com		MCL Failure:    yes <input type="checkbox"/> no <input checked="" type="checkbox"/>												
6) 65 GESU-WC-F-02      6:30		Client Notified (date/time/initials): _____														
7)																
8)																
9)																
10)																
<b>Special Instructions:</b>																
Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.																
Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:							
1	Kyle Jump		5/20/16	0040	3											
2			5/20/16	1200	4											



**Brighton Analytical LLC**  
2105 Pless Drive  
Brighton, Michigan 48114  
Phone: (810)229-7575 (810)229-8650  
e-mail: bai-brighton@sbcglobal.net  
MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 5/19/2016 06:20  
Submit Date/Time: 5/20/2016 12:00  
Report Date: 5/25/2016

AKT Peerless  
333 W. Fort  
Detroit, MI 48226

BA Project # **39170**  
BA Sample ID **CD03460**

Project Name: **AOD Drinking Water**  
Project Number: **GESU 1151 of 1-20**  
Sample ID: **GESO-KC-P-01**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
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**Drinking Water Metal Analysis**

Total Lead (Drinking Water)	6	ug/L	1	15	EPA 200.8 rev5.4	15:51	05/24/2016
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RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by \_\_\_\_\_

Date \_\_\_\_\_

*atford*  
*5/25/16*



**Brighton Analytical LLC**  
2105 Pless Drive  
Brighton, Michigan 48114  
Phone: (810)229-7575 (810)229-8650  
e-mail: bai-brighton@sbcglobal.net  
MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 5/19/2016 06:20  
Submit Date/Time: 5/20/2016 12:00  
Report Date: 5/25/2016

AKT Peerless  
333 W. Fort  
Detroit, MI 48226

BA Project # **39170**  
BA Sample ID **CD03461**

Project Name: **AOD Drinking Water**  
Project Number: **GESU 1151 of 1-20**  
Sample ID: **GESO-KC-F-01**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
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**Drinking Water Metal Analysis**

Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	15:55	05/24/2016
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RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date

W. Ford  
5/25/16





**Brighton Analytical LLC**  
2105 Pless Drive  
Brighton, Michigan 48114  
Phone: (810)229-7575 (810)229-8650  
e-mail: bai-brighton@sbcglobal.net  
MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 5/19/2016 06:25  
Submit Date/Time: 5/20/2016 12:00  
Report Date: 5/25/2016

AKT Peerless  
333 W. Fort  
Detroit, MI 48226

BA Project # **39170**  
BA Sample ID **CD03462**

Project Name: **AOD Drinking Water**  
Project Number: **GESU 1151 of 1-20**  
Sample ID: **GESO-WC-P-01**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	16:00	05/24/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by   
Date 5/25/16



**Brighton Analytical LLC**  
2105 Pless Drive  
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Phone: (810)229-7575 (810)229-8650  
e-mail: bai-brighton@sbcglobal.net  
MDNRE Certified #9404  
NELAC Accredited #176507

Sample Date/Time: 5/19/2016 06:25  
Submit Date/Time: 5/20/2016 12:00  
Report Date: 5/25/2016

AKT Peerless  
333 W. Fort  
Detroit, MI 48226

BA Project # **39170**  
BA Sample ID **CD03463**

Project Name: **AOD Drinking Water**  
Project Number: **GESU 1151 of 1-20**  
Sample ID: **GESO-WC-F-01**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	16:18	05/24/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by \_\_\_\_\_

Date \_\_\_\_\_

*[Signature]*  
5/25/16



**Brighton Analytical LLC**  
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NELAC Accredited #176507

Sample Date/Time: 5/19/2016 06:30  
Submit Date/Time: 5/20/2016 12:00  
Report Date: 5/25/2016

AKT Peerless  
333 W. Fort  
Detroit, MI 48226

BA Project # **39170**  
BA Sample ID **CD03464**

Project Name: **AOD Drinking Water**  
Project Number: **GESU 1151 of 1-20**  
Sample ID: **GESO-WC-P-02**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	16:23	05/24/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date

*[Signature]*  
*5/25/16*



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Sample Date/Time: 5/19/2016 06:30  
Submit Date/Time: 5/20/2016 12:00  
Report Date: 5/25/2016

AKT Peerless  
333 W. Fort  
Detroit, MI 48226

BA Project # **39170**  
BA Sample ID **CD03465**

Project Name: **AOD Drinking Water**  
Project Number: **GESU 1151 of 1-20**  
Sample ID: **GESO-WC-F-02**

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analysis Date
<b>Drinking Water Metal Analysis</b>							
Total Lead (Drinking Water)	Not detected	ug/L	1	15	EPA 200.8 rev5.4	16:27	05/24/2016

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date

*Alford*  
*5/25/16*



BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY  
CONTROL

# ICP-MS

## METHOD 200.8

### REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 5/24/2012      Standard ID: 050416 H2O      Batch: 5/23/2016 W2  
 Matrix Spike Lab ID: CD03477      Matrix: Total      Analyst: LT

Metals	Matrix Spike - Precision *			Matrix Spike - Accuracy**				Miscellaneous***		
	Matrix Spike (ug/L)	Matrix Spike Dup (ug/L)	RPD (%)	Spk Conc (ug/L)	MS Recovery (%)	MSD Recovery (%)	Sample Conc (ug/L)	Method Blk (ug/L)	LCS-Method STD (%)	Ind. Std. SPEX 1&3 (%)
Sodium	63448	62956	0.8	10000	102.9	97.9	53163	<100	94.5	93.1
Arsenic	1007	1006	0.1	1000	100.7	100.6	0	<1	100.7	100.3
Lead	1032	962	7.0	1000	103.2	96.2	0	<1	100.1	91.6

\* Matrix spike precision range +/- 20% RPD

\*\* Matrix spike accuracy range +/- 20% recovery

\*\*\* LCS accuracy range +/- 15% recovery / Ind std accuracy range +/- 10% recovery

Comments: \_\_\_\_\_